Project Ideas

Student project ideas for final year projects

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Naveeta Enterprise
Muhammad Qasim Pasta

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Confidentiality

The confidentiality of this document is between both parties and must not be disclosed to anyone else. This document should not use or consider as final draft and also must not be use or consider as the proposal or business plan.

ePOS

A complete Point of Sale solution provides functionalities from purchasing stock to sale on tailor machine. The system must support devices like bar code reader and ePOS printer etc. The UI must be designed to support touch screen.

Area: Information System
Category: Product
Innovation: 5/10
Challenges:

- Interface must be user friendly and designed on latest technology

Skills Required:

- Programming: Average
- Database: Good
- Analytical: Good
- User Interface: Excellent (must have aesthetic sense)

Billing v2

Extension of current Customizable billing system in order to meet further requirements:

Major requirements are:

- Company Module: Allow user to create their own companies and allow to add users
- User Right module: admin user must be able to set rights for their users
- Product Module: Add further properties for products like features, types etc
- Improve usability: Creation of prototype is not in scope but implementation of given prototype
- Use jQuery for better use experience
- Add email alerts for overdue / pending invoices

Area: Information System
Category: Product, Enhancement
Innovation: 7/10
Challenges:

- Incorporation of business model according to business requirement.
- User friendly interface

Skills Required:

- Programming: Average
- Database: Average
- Analytical: Good (must have idea of business processes)
- User Interface: Good (having knowledge of HTML/CSS)

Prototype Generator

The basic idea is to generate .Net GUI based on given image or draw sketches by using Tablet input device (like handwriting in msn). In first phase, it is required to generate common UI components like Form, Textboxes, Labels, Combo box, list, images etc

Area: Image Processing
Category: Innovation, Research
Innovation: 10/10
Challenge:

- Applying Image processing Algorithms for desired objective
- Innovation itself a challenge

Skills Required:

- Programming: Excellent
- Database: Excellent
- Analytical: Excellent (must have good idea about algorithms)
- User Interface: Average

Live Chat Support

An application to provide live chat support like we have in call centers. The requirement is not simple create chat application but:

- Manage Agents/representative: User can add agents and specify their areas. Like a agent can only provide help for Customer care and sales.
- Store chats: Store chat information with other contextual information like who provided the support? When? Duration? Response time? Etc
- Manual / Automatic delegation: must be able to set either automatic delegation or manual. In automatic a chat request will be directly diverted to appropriate agent where in manual a supervisor will select the agent
- Auto dash board: Generated dashboard for end user must be dynamic i.e. once defines that which kind of service/help/product we provide for support.
- Reports and Graphs: must provide extensive reports with graphs.

Area: Information System
Category: Innovation, Research
Innovation: 10/10
Challenges:

- Applying Image processing Algorithms for desired objective
- Innovation itself a challenge

Skills Required:

- Programming: Excellent
- Database: Excellent
- Analytical: Excellent (must have good idea about algorithms)
- User Interface: Average

Smart Seat – Attendance

The basic idea is to create a seat which can be personalized on the basis of person sitting on that seat. For first phase the requirements are:

- able to identify the person sitting on the seat
- must be distinguish that whether the person is sitting on seat or its just card around it
- An application
    - Allow to see the person sitting on Smart Seats in a room
    - Show me conflicts or proxy i.e. where a person is identify by reader but no weight on it
    - Allow to manage seats for a room
    - Allow to manage personal information about users

Area: Ubiquitous Computing
Category: Innovation, Research
Innovation: 10/10
Challenge:

- Communication with sensor and applications
- Innovation itself a challenge

Skills Required:

- Programming: Excellent
- Database: Excellent
- Analytical: Excellent (must have idea regarding electronics)
- User Interface: Average

uHome – Bluetooth home controller

A device that allows a user to handle home appliance like Lights, Fans etc via his cell phone connected with Bluetooth. This project has two parts

- Hardware:
    - A general hardware that can be plugged with any electric board or lines that must be receive Bluetooth signals and react accordingly.
    - A software that having list of appliance in a room and their status.

In later of this project, we want to enhance this project on mobile agent so user can move into different rooms and the appliances' status will update on user's mobile device via mobile agents

Area: Ubiquitous Computing
Category: Innovation, Research
Innovation: 10/10
Challenges:

- Creating hardware device and communication between device and mobile communication
- Innovation itself a challenge

Skills Required:

- Programming: Excellent
- Database: Excellent
- Analytical: Good (must have idea regarding electronics)
- User Interface: Average

Twitter Board

A twitter client to displays twitters status (from internet) on screen like a drawing board or chalking on a wall. The client must be able to sort and/or filter the status. Like all other twitter client, able to update status, view users' profiles and etc

Category: Product
Innovation: 8/10
Challenges:

- User interface must be attractive and user friendly

Skills Required:

- Programming: Good
- Database: Average
- Analytical: Average
- User Interface: Excellent (must have good aesthetic sense)